

IN THE CLAIMS:

Please amend the claims as shown below:

Claim 1 (cancelled)

Claim 2 (previously presented) A substrate cleaning apparatus comprising:

a substrate holder that holds a substrate;

a first scrub head that locates over the substrate, positions at a first height where the first scrub head substantially contacts the substrate during a cleaning operation, and moves, horizontally relative to the substrate; and

a second scrub head that locates over the substrate together with the first scrub head, positions at a second height where the second scrub head contacts the substrate via a liquid film formed on the substrate, and moves horizontally relative to the substrate such the second scrub head follows the first scrub head.

Claim 3 (original): The apparatus according to claim 2,

wherein the first scrub head has a brush or sponge, which removes contamination from a surface of the substrate, and

wherein the second scrub head has an internal space, into which a cleaning liquid is supplied, and a surface of the second scrub head is formed of a porous material having a plurality of pores through which the cleaning liquid supplied to the internal space is discharged.

Claim 4 (currently amended): A substrate cleaning apparatus comprising:

a ~~substrate holder~~ spin chuck that ~~holds~~ rotates a substrate about a rotation center while holding the substrate;

a first scrub head that locates over the substrate held by the ~~substrate holder~~ spin chuck, and moves horizontally relative to the substrate through the rotation center of the substrate toward a periphery of the substrate; and

a second scrub head that locates over the substrate together with the first scrub head, and moves horizontally relative to the substrate through the rotation center of the substrate toward a periphery of the substrate such that the second scrub head follows the first scrub head,

wherein the first scrub head is superior to the second scrub head in terms of a capability of removing contamination adhering to a surface of the substrate, and wherein the second scrub head has a lower level of adhesion to the contamination than that of the first scrub head.

Claims 5 and 6 (cancelled)

Claim 7 (currently amended): A substrate cleaning apparatus comprising:

a ~~substrate holder~~ spin chuck that ~~holds~~ rotates a substrate about a rotation center while holding the substrate;

a first scrub head that locates over the substrate held by the ~~substrate holder~~ spin chuck, and moves horizontally relative to the substrate through the rotation center of the substrate toward a periphery of the substrate; and

a second scrub head that locates over the substrate together with the first scrub head, and moves horizontally relative to the substrate through the rotation center of the substrate toward a periphery of the substrate such that the second scrub head follows the first scrub head,

wherein the first and second scrub heads are different at least in material or structure.

Claim 8 (cancelled)

Claim 9 (original): The apparatus according to claim 7, wherein the first scrub head has a brush or a sponge for removing contamination adhering to a surface of the substrate, and wherein the second scrub head has an internal space, into which a cleaning liquid is supplied, and a surface of the second scrub head is formed of a porous material having a plurality of pores through which the cleaning liquid supplied to the internal space is discharged.

Claim 10 (original): The apparatus according to claim 7, wherein the first scrub head is superior to the second scrub head in terms of a capability of removing contamination adhering to a surface of the substrate, and wherein the second scrub head has a lower level of adhesion to the contamination than that of the first scrub head.

Claim 11 (currently amended): The apparatus according to claim 7 further comprising:

a motor that rotates the ~~substrate holder~~ spin chuck;

a head traveling mechanism that moves the first and second scrub heads horizontally such that the second scrub head follows the first scrub head ; and

a controller that controls the motor and the head traveling mechanism,

wherein the controller is configured to decrease a rotational speed of the substrate held by the ~~substrate holder~~ spin chuck as the first and second scrub heads approach a periphery of the substrate.

Claim 12 (currently amended): The apparatus according to claim 7 further comprising:

a motor that rotates the ~~substrate holder~~ spin chuck;

a head traveling mechanism that moves the first and second scrub heads in a radial direction of the substrate from about a center of the substrate; and

a controller that controls the motor and the head traveling mechanism, wherein the controller is configured to decrease velocities of the first and second scrub heads as the first and second scrub heads approach a periphery of the substrate.

Claim 13 (withdrawn): The substrate cleaning method comprising the steps of:

holding a substrate by a substrate holder; and

moving first and second scrub heads over the substrate held by the substrate holder while feeding a cleaning liquid onto the substrate, thereby removing contamination adhering to the substrate,

wherein the first scrub head is superior to the second scrub head in terms of a capability of removing contamination adhering to a surface of the substrate, and wherein the second scrub head has a lower level of adhesion to the contamination than that of the first scrub head, and

wherein the first and second scrub heads moves relative to the substrate such that the second scrub head follows the first scrub head during the step of removing contamination.

Claim 14 (withdrawn): The method according to claim 13, wherein the substrate is rotated during the step of removing contamination.

Claim 15 (withdrawn): The method according to claim 13, wherein the first and second scrub heads move from a center of the substrate toward a periphery of the substrate, during the step of removing contamination.

Claim 16 (withdrawn): The method according to claim 15, wherein velocities of the first and second scrub heads are gradually decreased as the first and second scrub heads approach a periphery of the substrate, during the step of removing contamination.

Claim 17 (withdrawn): The method according to claim 15, wherein a rotational speed of the substrate is gradually decreased as the first and second scrub heads approach a periphery of the substrate during the step of removing contamination.

Claim 18 (withdrawn): The method according to claim 13, wherein the first scrub head moves while rotating during the step of removing contamination.

Claim 19 (withdrawn): The method according to claim 13, wherein the second scrub head moves while discharging a cleaning liquid through a surface of the second scrub head during the step of removing contamination.

Claim 20 (withdrawn): The method according to claim 13, wherein the second scrub head contacts with the substrate via a film of the cleaning liquid formed on a surface of the substrate during the step of removing contamination.

Claim 21 (previously presented): The apparatus according to claim 4, further comprising:

a first head holder that holds the first scrub head at a height where the first scrub head substantially contacts with the substrate during the cleaning operation; and

a second head holder that holds the second scrub head at a height where the second scrub head contacts with the substrate via a liquid film formed on the substrate during the cleaning operation.

Claim 22 (previously presented): The apparatus according to claim 4,

wherein the first scrub head has a brush or sponge, which removes contamination from the surface of the substrate, and

wherein the second scrub head has an internal space, into which a cleaning liquid is supplied, and a surface of the second scrub head is formed of a porous material having a plurality of pores through which the cleaning liquid supplied to the internal space is discharged.

Claim 23 (previously presented): The apparatus according to claim 4, further comprising:

a motor that rotates the substrate holder; and

a head traveling mechanism that moves the first and second scrub heads linearly and horizontally.

Claim 24 (previously presented): The apparatus according to claim 23, wherein the head traveling mechanism includes a head holder that holds both the first and second scrub heads so that a horizontal distance between the first and second scrub heads is maintained constant.

Claim 25 (previously presented): The apparatus according to claim 23, wherein the head traveling mechanism includes:

a first head holder that holds the first scrub head;

a second head holder that holds the second scrub head; and

a guide that guides the first and second head holders linearly and horizontally.